



DFW

PTO/SB/21 (09-06)

Approved for use through 03/31/2007. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	10/646,353
Filing Date	August 22, 2003
First Named Inventor	Westhoff et al.
Art Unit	2826
Examiner Name	Kevin V. Quinto
Attorney Docket Number	ASC-058B

## ENCLOSURES (Check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): -Certificate of First Class Mailing -Return Receipt Postcard
<div>Remarks</div>		

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	GOODWIN PROCTER LLP		
Signature			
Printed name	Matthew T. Currie		
Date	November 10, 2006	Reg. No.	58,533

LIBC/2873492



**PATENT**  
Attorney Docket No. ASC-058B  
(120237/156704)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT: Westhoff *et al.*  
SERIAL NO.: 10/646,353 GROUP NO.: 2826  
FILING DATE: August 22, 2003 EXAMINER: Kevin V. Quinto  
TITLE: SEMICONDUCTOR HETEROSTRUCTURES HAVING REDUCED  
DISLOCATION PILE-UPS AND RELATED METHODS

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**RESPONSE TO ELECTION REQUIREMENT**

This paper responds to the Election Requirement mailed from the U.S. Patent and Trademark Office on October 11, 2006, in connection with the above-identified patent application.

The Examiner has required the Applicants to elect one of four perceived patentably distinct species:

- A. A first semiconductor layer and a compositionally uniform relaxed cap layer;
- B. A first semiconductor layer, a compositionally uniform relaxed cap layer, and a compositionally graded layer between the first semiconductor layer and the compositionally uniform relaxed cap layer;
- C. A first semiconductor layer, a compositionally uniform relaxed cap layer, and a seed layer (with uniformly distributed threading dislocations) between the first semiconductor layer and the compositionally uniform relaxed cap layer; and
- D. A first semiconductor layer, a compositionally uniform relaxed cap layer, and a seed layer (with uniformly distributed threading dislocations) between the first semiconductor layer and the compositionally uniform relaxed cap layer, and a compositionally uniform buffer layer between the compositionally uniform relaxed cap layer and the seed layer.

Applicants hereby elect, without traverse, Species A. The claims readable thereon include claims 1-12, 54, and 78. Claim 1 is a generic claim. Upon allowance of claim 1, Applicants request the consideration of claims 13-53 that also depend on claim 1.


Applicants respectfully request that the application now proceed promptly to examination. Applicants believe that no additional fees are necessitated by the present Response. However, in the event that any additional fees are due, the Commissioner is hereby authorized to charge any such fees to Deposit Account No. 07-1700.

If the Examiner believes that a telephone conversation with Applicants' agent would expedite allowance of this application, the Examiner is cordially invited to call the undersigned agent at (617) 570-1198.

Respectfully submitted,

Date: November 10, 2006  
Reg. No. 58,533

Tel. No.: (617) 570-1198  
Fax No.: (617) 523-1231

  
\_\_\_\_\_  
Matthew T. Currie  
Agent for Applicant  
Goodwin Procter LLP  
Exchange Place  
Boston, Massachusetts 02109



PTO/SB/92 (09-06)

Approved for use through 03/31/2007. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Application No. (if known): 10/646,353

Attorney Docket No.: ASC-058B

## Certificate of Mailing under 37 CFR 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

on November 10, 2006  
Date

*Matthew Currie*

Signature

Matthew Currie

Typed or printed name of person signing Certificate

58,533

Registration Number, if applicable

(617) 570-1198

Telephone Number

Note: Each paper must have its own certificate of mailing, or this certificate must identify each submitted paper.

- Transmittal Form (1 page)
- Response to Election Requirement (2 pages)
- Return Receipt Postcard